

RECEIVED

MAR 10 2003

page 10 line 11 with changes made:

TECHNOLOGY CENTER R3700

Q The rod member 6 is typically simply an elongated cylindrical rod which may be bent by benders to conform with the desired curvature of the spine. The rod member may be smooth or knurled. The rod member 6 may also include other types of similar structures such as connectors having a cylindrical or rod like nipple associated therewith for insertion into the bone screw head 14.

The following is the previous paragraph with changes marked by bracketing to indicate deletions and underlining to indicate additions:

The rod member 6 is typically simply an [elongate] elongated cylindrical rod which may be bent by benders to conform with the desired curvature of the spine. The rod member may be smooth or knurled. The rod member 6 may also include other types of similar structures such as connectors having a cylindrical or rod like nipple associated therewith for insertion into the bone screw head 14.

The following is a clean copy of the paragraph beginning on page 10 line 18 with changes made:

a²
The illustrated closure 5 is a cylindrical shaped plug having a generally cylindrical shaped radially outer surface 32, a flat bottom 33 and a flat top 34. The closure 5 has an axis of rotation, generally indicated by the reference numeral A. The axis of rotation A is at the radial center of the closure 5. A bore 37 that is co-axial with the axis of rotation A extends through the top 34 and partially through the closure 5. The bore 37 is polyfaceted so as to have a hexagonal cross section such that closure 5 can be installed or removed with an allen type wrench that fits the bore 37.

The following is the previous paragraph with changes marked by bracketing to indicate deletions and underlining to indicate additions:

The illustrated closure 5 is a cylindrical shaped plug having a generally cylindrical shaped radially outer surface [42] 32, a flat bottom 33 and a flat top 34. The closure 5 has an axis of rotation, generally indicated by the reference numeral A.

The axis of rotation A is at the radial center of the closure 5. A bore 37 that is co-axial with the axis of rotation A extends through the top 34 and partially through the closure 5. The bore 37 is polyfaceted so as to have a hexagonal cross section such that closure 5 can be installed or removed with an allen type wrench that fits the bore 37.

The following is a clean copy of the paragraph beginning on page 11 line 6 with changes made:

³
a Although a particular closure 5 has been illustrated herein, it is foreseen that the invention can be used in conjunction with plugs and set screws of various types and configurations. For example, the closure 5 may include a break off head for insertion and various types of structure for removal, as opposed to the bore 37. The closure 5 may also include structure to assist in engaging and securing the rod member 6, such as a depending point, a roughened under surface, or a cutting ring. Finally, although the closure of the present invention is illustrated in use in conjunction with an open headed implant, it is foreseen that the closure 5 could be utilized in conjuncture with closed bores, either as a plug or set screw.

The following is the previous paragraph with changes marked by bracketing to indicate deletions and underlining to indicate additions:

Although a particular closure 5 has been illustrated herein, it is foreseen that the invention can be used in conjunction with plugs and set screws of various types and configurations. For example, the closure 5 may include a break off head for insertion and various types of structure for removal, as opposed to the bore 37. The closure 5 may also include structure to assist in engaging and securing the rod member 6, such as a depending point, a roughened under surface, or a cutting ring. Finally, [altough] although the closure of the present invention is illustrated in use in conjunction with an open headed implant, it is foreseen that the closure 5 could be utilized in conjuncture with closed bores, either as a plug or set screw.

The following is a clean copy of the paragraph beginning on page 11 line 19 with changes made:

at The thread 1 winds about the outer surface 32 of the closure 5 in a generally helical pattern or configuration, which is

typical of threads and can have various pitches, be counterclockwise advanced or vary in most of the ways that conventional threads vary. The thread 1 has a leading surface 40 and a trailing surface 41. As used herein the terms leading and trailing refer to the direction of advancement of the closure 5 when used to close the implant 7 which is downward or in the direction of the rod member 6 in figure 4. In the illustrated embodiment, advancement is produced by clockwise rotation. The leading surface 40 has an inner edge 44 and an outer edge 45. The trailing surface 41 also has an inner edge 48 and an outer edge 49.

The following is the previous paragraph with changes marked by bracketing to indicate deletions and underlining to indicate additions:

The thread 1 winds about the outer surface 32 of the closure 5 in a generally helical pattern or configuration, which is typical of threads and can have various pitches, be counterclockwise advanced or vary in most of the [way] ways that conventional threads vary. The thread 1 has a leading surface 40 and a trailing surface 41. As used herein the terms leading and

trailing refer to the direction of advancement of the closure 5 when used to close the implant 7 which is downward or in the direction of the rod member 6 in figure 4. In the illustrated embodiment, advancement is produced by clockwise rotation. The leading surface 40 has an inner edge 44 and an outer edge 45. The trailing surface 41 also has an inner edge 48 and an outer edge 49.

The following is a clean copy of the amended paragraph beginning on page 12 line 9 with changes made:

25
With reference to Figure 3, the leading surface inner edge 44 and trailing surface inner edge 48 are substantially spaced. Both the leading surface inner edge 44 and trailing surface inner edge 48 have substantially constant radius with respect to the axis of rotation A, preferably throughout the length of the thread 1 and at least throughout substantially most of the thread 1. The leading surface outer edge 45 and trailing surface outer edge 49 are closely spaced relative to one another and may be slightly relieved as shown so as to have a slight connecting wall 50 that decreases the sharpness of the thread 1 and increases the strength thereof. As can be seen in Figure 3, the general shape

PS
of the cross section of the thread 1 is that of a obtuse triangle with the outer sharpened edge slightly reduced. It can also be seen that the intersection of the leading surface 40 and the trailing surface 41 with a plane passing through the axis of rotation A which is essentially what is shown in the front or closest surface shown in Figure 3 both slope rearwardly, as indicated by the arrow shown Figure 3 from inner edges 44 and 48 to outer edges 45 and 49 thereof.

The following is the previous paragraph with changes marked by bracketing to indicate deletions and underlining to indicate additions:

With reference to Figure 3, the leading surface inner edge 44 and trailing surface inner edge 48 are substantially spaced. Both the leading surface inner edge 44 and trailing surface inner edge 48 have substantially constant radius with respect to the axis of rotation A, preferably throughout the length of the thread 1 and at least throughout substantially most of the thread 1. The leading surface outer edge 45 and trailing surface outer edge 49 are closely spaced relative to one another and may be slightly relieved as shown so as to have a slight connecting wall

50 that decreases the sharpness of the thread 1 and increases the strength thereof. As can be seen in Figure 3, the general shape of the cross section of the thread 1 is that of a obtuse triangle with the outer sharpened edge slightly reduced. It can also be seen that the intersection of the leading surface 40 and the trailing surface 41 with a plane passing through the axis of rotation A which is essentially what is shown in the front or closest surface shown in Figure 3 both slope rearwardly, as indicated by the arrow shown Figure [3from] 3 from inner edges 44 and 48 to outer edges 45 and 49 thereof.

✓
Please add the following paragraph between lines 1 and 2 on page 15:

A6
--It is foreseen that the thread 1 can be continuous or discontinuous, as is threadform 53.--

IN THE CLAIMS:

The following are proposed amended claims in a clean format:

- A7
1. A threadform [sized and shaped for and located on a first medical implant closure that is threadedly